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Title: **JP11204151A2: BATTERY COOLING DEVICE OF ELECTRIC VEHICLE**

Country: **JP** Japan
Kind: **A**

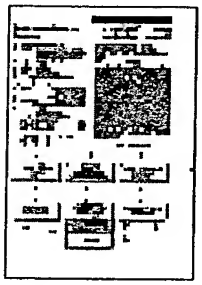
Inventor(s): **SHIMONOSONO HITOSHI**

Applicant/Assignee: **NISSAN MOTOR CO LTD**

Issued/Filed Dates: **July 30, 1999** / Jan. 8, 1998

Application Number: **JP1998000002045**

IPC Class: **H01M 10/50**; B60L 11/18; F01P 3/12; B60K 1/04; B60K 11/04;



Priority Number(s): July 21, 1998 **JP1998000002045**

Abstract:

Problem to be solved: To provide a battery cooling device for an electric vehicle capable of efficiently controlling the battery temperature.
Solution: A heat pipe 3 is brought into contact with a battery module 1, the other end of the heat pipe 3 is connected to a heat sink 5, and the heat generated in the battery is transferred to the heat sink 5, a heat accumulating material 6 such as paraffin in contained in the heat sink 5, and a cooling water passage 7 passing through the heat reserving material 6, a cooling water piping 8 connected to the cooling water passage 7, an electric pump 9, and a radiator 10 are arranged.

Family: Show known family members

Other Abstract Info: DERABS G1999-484467 DERABS G1999-484467

Foreign References: No patents reference this one

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for the Gallery...

(19)

(11) Publication number: **11204151 A**

PATENT ABSTRACTS OF JAPAN

(21) Application number: **10002045**

(22) Application date: **08.01.98**

(51) Intl. Cl.: **H01M 10/50** B60L 11/18 F01P 3/12

(30) Priority:

(43) Date of application publication: **30.07.99**

(84) Designated contracting states:

(71) Applicant: **NISSAN MOTOR CO LTD**

(72) Inventor: **SHIMONOSONO HITOSHI**

(74) Representative:

(54) BATTERY COOLING DEVICE OF ELECTRIC VEHICLE

(57) Abstract:

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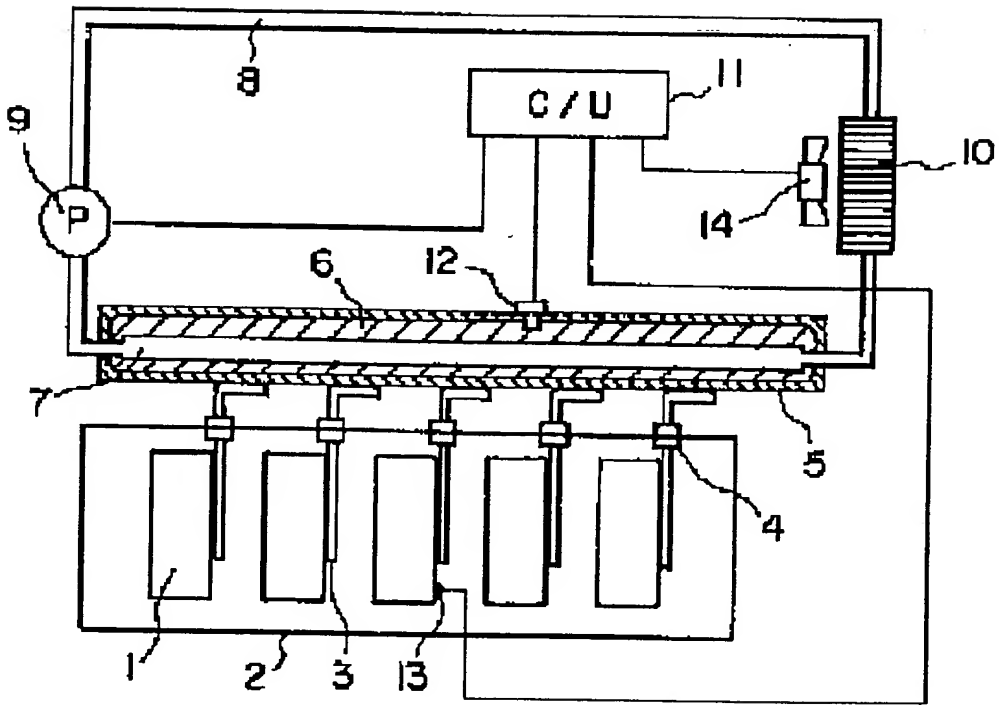
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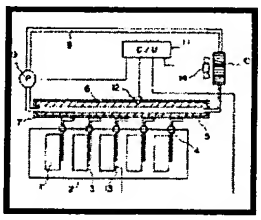
Battery cooling system for electric vehicle - has heat exchange pipe to contact battery module and heat sink for transferring heat generated in battery module to heat sink



Assignee: **NISSAN MOTOR CO LTD** Standard company (NSMO...)
Inventor(s): **none**

Accession / Update: **1999-484467 / 199945**

IPC Class: B60K 1/04 ; B60K 11/04 ; **H01M 10/50** ; B60L 11/18 ; F01P 3/12 ;

Derwent Classes: X16; X21; Q13; Q14; Q51;

Manual Codes: **X16-K**(Battery cooling and heating) , **X21-A01F**(Electric vehicle) , **X21-B01A**(Traction battery)

Derwent Abstract

(JP11204151A) **Novelty** - Heat exchange pipe (3) contacts a battery module (1) and a heat sink (5) so that heat generated in battery module is transferred to the heat sink through the heat exchange pipe. Cooling water path (7) penetrates thermal storage materials (6) such as paraffin inside the heat sink. Electrically driven pump (9) and radiator (10) are connected to cooling water path via a cooling water pipe (8). **Detailed Description** - Thermal storage material absorbs the heat transferred to the heat sink. Cooling water is passed through the cooling water path for absorbing the latent heat of the thermal storage material. Radiator releases the heat transferred to the cooling water to the outer air. An INDEPENDENT CLAIM is also included for the battery temperature controlling method.

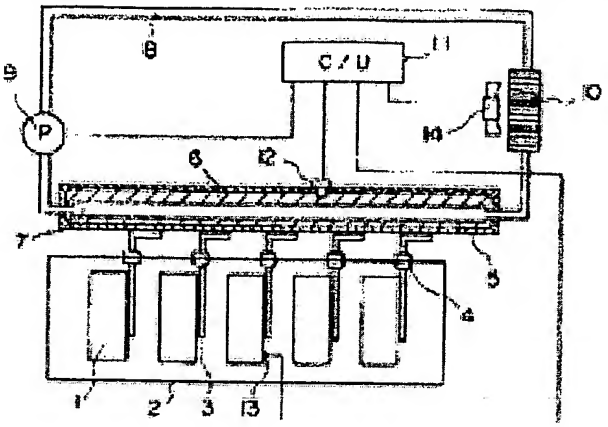
Use - For electric vehicle.

Advantage - Enables to control battery temperature efficiently. Achieves equalisation of skin temperature of battery module by increasing contact area of battery module and heat exchange pipe.

Description of Drawing(s) - The figure shows composition of battery cooling system. (1) Battery module; (3) Heat exchange pipe; (5) Heat sink; (6) Thermal storage materials; (7) Cooling water path; (8) Cooling water pipe; (9) Pump; (10) Radiator.

Abstract info: JP11204151A: Dwg.1/7

Images:



Family:

Patent	Issued	DW Update	Pages	Language	IPC Class
JP11204151A *	July 30, 1999	199941	6	English	H01M 10/50

Local appls.: JP1998000002045 ApplDate:1998-01-08 (98JP-0002045)

Priority Number(s):

Application Number	Application Date	Original Title
JP1998000002045	Jan. 08, 1998	BATTERY COOLING DEVICE OF ELECTRIC VEHICLE

Title Terms: BATTERY COOLING SYSTEM ELECTRIC VEHICLE HEAT EXCHANGE PIPE CONTACT BATTERY MODULE HEAT SINK TRANSFER HEAT GENERATE BATTERY MODULE HEAT SINK

: Pricing Current charges

Derwent Searches Patent / Numbers Boolean Text Advanced Text · Demo